WAC7500/05

PHILIPS

HK-   0738-WAC7500
(report No.)

EC DECLARATION OF CONFORMITY

We,

Philips Consumer Electronics
(manufacturer's name)

Philips, Glaslaan 2, 5616 JB Eindhoven, The Netherlands
(manufacturer's address)

declare under our responsibility that the electrical product:

Philips   WAC7500/12, /05
(name)   *(type or model)*

Wireless Music Center
(product description)

to which this declaration relates is in conformity with the following standards:

EN55013 : 2001 +A1:2003 + A2:2006	EN 300 328 : 2004
EN55020 : 2002 + A1:2003 +A2:2005	EN 301 489-1 : 2005
EN 55022: 2006	EN 301 489-17: 2002
EN 55024: 1998 +A1:2001 +A2:2003	EN 50371 : 2002
EN 60065: 2002 +A1:2006	

(title and/or number and date of issue of the standards)

following the provisions of R &TTE Directive 1999/5/EC (incl. 73/23/EEC & 93/68/EEC
directives and is produced by a manufacturing organization on ISO 9000 level.

Eindhoven,
September 18, 2007
(place, date)

Eric Tijssen
Program Manager
PCE I-Lab Entertainment Solutions
(signature, name and function)

Contents

1 Important

Safety

Know these safety symbols

This 'bolt of lightning' indicates uninsulated material within your unit may cause an electrical shock. For the safety of everyone in your household, please do not remove product covering.

The 'exclamation point' calls attention to features for which you should read the enclosed literature closely to prevent operating and maintenance problems.

WARNING: To reduce the risk of fire or electric shock, this apparatus should not be exposed to rain or moisture and objects filled with liquids, such as vases, should not be placed on this apparatus.

CAUTION: To prevent electric shock, match wide blade of plug to wide slot, fully insert.

a Read these instructions.

b Keep these instructions.

c Heed all warnings.

d Follow all instructions.

e Do not use this apparatus near water.

f Clean only with dry cloth.

g Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.

h Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

i For countries with a polarized mains, do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet. Caution: To prevent electric shock, match the wide blade of the plug to the wide slot, fully insert.
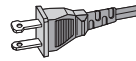
j Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

k Only use attachments/accessories specified by the manufacturer.

l Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

m Unplug this apparatus during lightning storms or when unused for long periods of time.

n Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

o Battery usage CAUTION – To prevent battery leakage which may result in bodily injury, property damage, or damage to the unit:
   - Install all batteries correctly, + and - as marked on the unit.
   - Do not mix batteries (old and new or carbon and alkaline, etc.).
   - Remove batteries when the unit is not used for a long time.

p Apparatus shall not be exposed to dripping or splashing.

q Do not place any sources of danger on the apparatus (e.g. liquid filled objects, lighted candles).

r This product may contain lead and mercury. Disposal of these materials may be regulated due to environmental considerations. For disposal or recycling information, please contact your local authorities or the Electronic Industries Alliance: www.eiae.org.

⚠ Warning

- Never remove the casing of this WAC7500.
- Never lubricate any part of this WAC7500.
- Place this WAC7500 on a flat, hard and stable surface.
- Never place this WAC7500 on other electrical equipment.
- Only use this WAC7500 indoors. Keep this WAC7500 away from water, moisture and liquid-filled objects.
- Keep this WAC7500 away from direct sunlight, naked flames or heat.

Notice

Class II equipment symbol

This symbol indicates that the unit has a double insulation system.

Recycling

Your product is designed and manufactured with high quality materials and components, which can be recycled and reused.
When you see the crossed-out wheel bin symbol attached to a product, it means the product is covered by the European Directive 2002/96/EC:

Never dispose of your product with other household waste. Please inform yourself about the local rules on the separate collection of electrical and electronic products. The correct disposal of your old product helps prevent potentially negative consequences on the environment and human health.
Your product contains batteries covered by the European Directive 2006/66/EC, which cannot be disposed of with normal household waste. Please inform yourself about the local rules on separate collection of batteries. The correct disposal of batteries helps prevent potentially negative consequences on the environment and human health.

CE 0682 ⚠ **R&TTE Directive 1999/5/EC**

BE	✓	DK	✓	GR	✓	ES	✓	FR	✓
IE	✓	IT	✓	LU	✓	NL	✓	AT	✓
PT	✓	FI	✓	SE	✓	UK	✓	NO	✓
DE	✓	CH	✓	PL	✓	HU	✓	SK	✓
CZ	✓	CY	✓	IS	✓				

2 Your Wireless Music Center

Congratulations on your purchase and welcome to Philips!
To fully benefit from the support that Philips offers, register your product at **www.philips.com/welcome**.

Overview

Front view
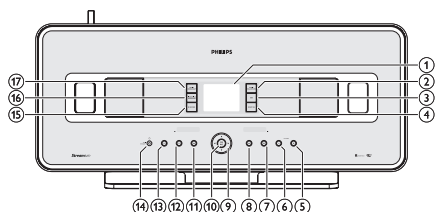
a **LCD (display)**

b **MUSIC FOLLOWS ME**

c **DBB Dynamic Bass Boost**

d **SMART EQ** Smart Equalizer

e **+VOLUME** increase volume

f **−VOLUME** decrease volume

g ■**stop**

h ►►I**skip forward**

i ▲▼◄►**navigate left/right/up/down**

j **OK/►II**confirm / play/pause

k I◄◄**skip back**

l **MENU**

m **HOME**

n ⏻**On / Standby / Eco Standby**
   - Press briefly to toggle between modes Standby and On.
   - Press and hold to toggle between modes On and Eco Standby (power-saving mode).

o ● **RECORD** record

p **INCREDIBLE SURROUND SOUND**

q **MUSIC BROADCAST**

> **Note**
>
> • The illumination of one corner of the casing is a design element.

Top view
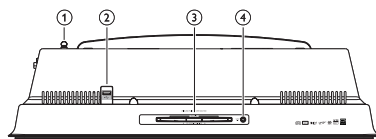
a **Wi-Fi antenna**

b **USB jack**

c **CD slot** (insert CD facing you)

d ▲ **eject CD**

Side view
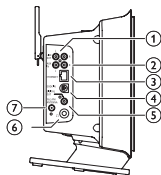
a LINE OUT L / R line out jacks

b AUX L / R external device connections

c ETHERNET Ethernet jack

d DOCK IN docking jack

e DIGITAL OUT digital out jack

f ∩headphone jack

g 75 Ω FM ANTENNA FM antenna jack

Remote control

a ⏻On / Standby

b HOME
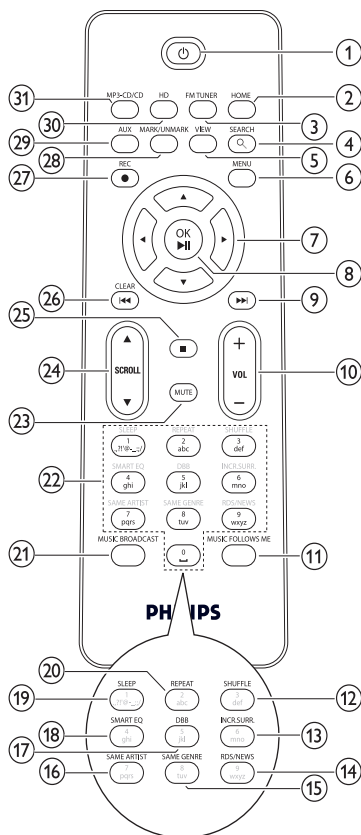
c FM TUNER FM radio tuner

d SEARCH

e VIEW view screen / previous options list

f MENU enter / exit setup menu.

g ▲▼◄►navigate

h OK/► IIconfirm / play/pause

i ►►Iskip forward

j +VOL −volume up / down

(11) MUSIC FOLLOWS ME

(12) SHUFFLE random play

(13) INCR.SURR. Incredible Surround sound

(14) RDS/NEWS

(15) SAME GENRE

(16) SAME ARTIST

(17) DBB Dynamic Bass Boost

(18) SMART EQ smart equalizer

(19) SLEEP sleep timer

(20) REPEAT

(21) MUSIC BROADCAST

(22) Alphanumeric keys

(23) MUTE turn off sound output

(24) ▲ SCROLL ▼

(25) ■

(26) CLEAR◀◀ clear entry / skip back

(27) REC● record

(28) MARK/UNMARK

(29) AUX select external device

(30) HD harddisk music

(31) MP3-CD/CD

3 Prepare

1 Open the battery compartment.
2 Insert 2 AAA batteries with correct polarity (+/-) as indicated.
3 Close the battery compartment.

Position the WAC7500

> ⚠ **Caution**
>
> • Risk of product damage! Place the WAC7500 on a surface that is level, flat, and strong enough to support the WAC7500.

Connect to AC power

> ⚠ **Warning**
>
> • Risk of product damage! Ensure that the power supply voltage corresponds to the voltage printed on the back or the underside of the WAC7500.

1 Connect the WAC7500 to the power supply
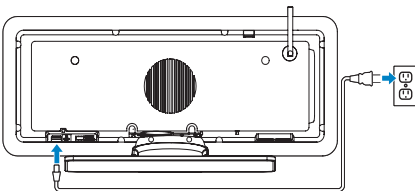
» Your WAC7500 turns on and is ready to be set up for use.

> ≡ **Note**
>
> • The type plate information is located at the back or at the underside of the WAC7500.

Turn on / switch to standby

You can select from the following status options:
• On
• Standby
  • Active standby. The ⏻ button on the remote control can turn on the WAC7500.
• Eco standby
  • Passive standby. Only the ⏻ button on the top panel can turn on the WAC7500.

> ≡ **Note**
>
> • If no buttons are pressed for 20 minutes, the WAC7500 switches to standby.

1 To turn on the WAC7500, press ⏻.
2 To switch the WAC7500 to standby, press ⏻.
3 To switch the WAC7500 to eco standby, press and hold the ⏻ button on the top panel.

> ≡ **Note**
>
> • When the WAC7500 is in eco standby mode, the remote control is inactive.

4 Connect to a home network

Before you connect the WAC7500 to a router:

- Ensure that the PC meets the minimum requirements.
  You can choose one of these modes of connection:
- Wireless connection with automatic IP address (see 'Create wireless connection with automatic IP address' on page 10)
- Wireless connection with static IP address (see 'Create wireless connection with static IP address' on page 10)
- Wired connection with automatic IP address (see 'Create wired connection with automatic IP address' on page 11)
- Wired connection with static IP address (see 'Create wired connection with static IP address' on page 11)

Create wireless connection with automatic IP address

This is how to navigate and select with the remote control:

- Press ▲or ▼to select a menu option.
- Press ►to confirm a selection.
  - Press ◄to go back to the previous screen.
- Press **HOME** to go to the Home menu. The alphanumeric buttons of the remote control are multi-function buttons:
- To select a number or an alphanumeric character, press a button once or more until you see the number or alphabetic character in the display of the WAC7500.
- To cycle through the alphanumeric characters that are available, press a button repeatedly.
- To delete the last character entry from the display, press **CLEAR** .

This chapter shows you how to create a wireless connection to a home network with automatic IP address.

1 Ensure that your network name and network password or encryption key are available.
   - Some Internet service providers (ISP) require the use of a proxy server.

2 Turn on your wireless access point or wireless router with broadband Internet.

3 Turn on the WAC7500.

4 On the WAC7500, press **MENU** .

5 Select **[Settings]** > **[Network]** > **[Wireless]** and confirm.

6 Select the network from the list in the display.
   - Enter encryption key (if required) with the remote control, then press **OK** to continue.

7 Select **[Automatic]** > (Apply settings?) **[Yes]** and confirm.
   » The WAC7500 displays a confirmation screen that the settings are saved.

Create wireless connection with static IP address

This is how to navigate and select with the remote control:

- Press ▲or ▼to select a menu option.
- Press ►to confirm a selection.
  - Press ◄to go back to the previous screen.
- Press **HOME** to go to the Home menu. The alphanumeric buttons of the remote control are multi-function buttons:
- To select a number or an alphanumeric character, press a button once or more until you see the number or alphabetic character in the display of the WAC7500.
- To cycle through the alphanumeric characters that are available, press a button repeatedly.

- To delete the last character entry from the display, press **CLEAR** .
  This chapter shows you how to create a wireless connection to a home network with static IP address.

1 Ensure that your encryption key (if required) is available.

2 Turn on your wireless access point or wireless router with broadband Internet.

3 Turn on the WAC7500.

4 On the WAC7500, press **MENU** .

5 Select **[Settings]** < **[Network]** > **[Wireless]** and confirm.

6 Select the network from the list in the display.
  - Enter encryption key (if required) with the remote control, then press **OK** to continue.

7 Select **[Static]** and confirm.

8 Enter the static IP address with the remote control and confirm with **OK** .

9 Select (Apply settings?) **[Yes]** and confirm.
  » The WAC7500 displays a confirmation screen that the settings are saved.

Create wired connection with automatic IP address

This is how to navigate and select with the remote control:

- Press ▲or ▼to select a menu option.
- Press ▶to confirm a selection.
  - Press ◀to go back to the previous screen.
- Press **HOME** to go to the Home menu. The alphanumeric buttons of the remote control are multi-function buttons:
- To select a number or an alphanumeric character, press a button once or more until you see the number or alphabetic character in the display of the WAC7500.

- To cycle through the alphanumeric characters that are available, press a button repeatedly.
- To delete the last character entry from the display, press **CLEAR** .
  This chapter shows you how to create a wired connection to a home network with automatic IP address.

1 Use an Ethernet cable (sold separately) to connect the WAC7500 to the access point or router that connects to your home network with broadband Internet access.

2 Turn on your wireless access point or wireless router with broadband Internet.

3 Turn on the WAC7500.

4 On the WAC7500, press **MENU** .

5 Select **[Settings]** > **[Network]** > **[Wired]** > **[Automatic]** > (Apply settings?) **[Yes]** and confirm.
  » The WAC7500 displays a confirmation screen that the settings are saved.

Create wired connection with static IP address

This is how to navigate and select with the remote control:

- Press ▲or ▼to select a menu option.
- Press ▶to confirm a selection.
  - Press ◀to go back to the previous screen.
- Press **HOME** to go to the Home menu. The alphanumeric buttons of the remote control are multi-function buttons:
- To select a number or an alphanumeric character, press a button once or more until you see the number or alphabetic character in the display of the WAC7500.
- To cycle through the alphanumeric characters that are available, press a button repeatedly.
- To delete the last character entry from the display, press **CLEAR** .

This chapter shows you how to create a wired connection to a home network with automatic IP address.

1 Use an Ethernet cable (sold separately) to connect the WAC7500 to the access point or router that connects to your home network with broadband Internet access.

2 Turn on your wireless access point or wireless router with broadband Internet.

3 Turn on the WAC7500.

4 On the item, press **MENU** .

5 Select **[Settings]** > **[Network]** > **[Wired]** > **[Static]** and confirm.

6 Enter the static IP address with the remote control and confirm with **OK** .

7 Select (Apply settings?) **[Yes]** and confirm.
   ↳ The WAC7500 displays a confirmation screen that the settings are saved.

5 Build a music library on the harddisk

Be responsible
Respect copyrights

You have the following options to build a music library on the harddisk:

- rip music from CDs
- import music from a PC
- record music from FM radio
- record music from an external device

Music recognition technology and related data are provided by Gracenote®. Gracenote is the industry standard in music recognition technology and related content delivery. For more information, please visit www.gracenote. com.

CD and music-related data from Gracenote, Inc., copyright © 2000-2007 Gracenote. Gracenote Software, copyright © 2000-2007 Gracenote. This product and service may practice one or more of the following U.S. Patents: #5,987,525; #6,061,680; #6,154,773, #6,161,132, #6,230,192, #6,230,207, #6,240,459, #6,304,523, #6,330,593, #7,167,857, and other patents issued or pending. Gracenote and CDDB are registered trademarks of Gracenote. The Gracenote logo and logotype, and the "Powered by Gracenote" logo are trademarks of Gracenote. Gracenote® is a registered trademark of Gracenote, Inc. The Gracenote logo and logotype, and the "Powered by Gracenote" logo are trademarks of Gracenote.

Import music from a PC

The import of music into the WAC7500 requires the WADM (Wireless Audio Device Manager) in the supplied PC installer. Before you can import music from a PC that is connected to a home network, you need to connect the WAC7500 to the PC.

Install WADM software on the PC

Install the WADM software on the PC and open the application.

1 In the WADM main menu, click **Content Management**.

2 In **My Computer** (top window), click to select file(s).

3 Drag and drop selected file(s) to WAC7500 (bottom window).

Rip music from CDs on the WAC7500

Rip from a CD to the harddisk of the WAC7500 at high speed:
(Audio CD, MP3/WMA CD)

> **Note**
>
> • While the WAC7500 is ripping, only the stop ■ function is available.

> **Tip**
>
> • You can rip while you listen, if you press **REC** ● during play.
> •

1 On the WAC7500, insert CD with printed side facing you.

2 In the track list screen, press **REC** ●.

3 Press **MARK/UNMARK** to select/deselect tracks. (By default, the WAC7500 rips

all tracks of the CD when no tracks are marked.)
   • Long press **MARK/UNMARK** to select/deselect all tracks.

4 Press **REC** ● to start ripping.

5 To rip another CD, repeat above steps 1 to 4.

6 To stop ripping, press ■.

> **Tip**
>
> • For information about how to change the rip quality, see chapter Settings.

Record music

You can record from 2 different sources.

1 Press
   • **AUX** to record from an external device.
   • **FM TUNER** to record from FM radio.

2 Press **REC** ●.

3 To stop recording, press ■.

6 Play

Adjust volume

1 During play, press **+VOL −** to adjust the volume.

Mute the sound

You can turn off the sound of your audio.

1 During play, press **MUTE** .
   - To turn the sound back on, press **MUTE** again.

Play CD

1 Insert CD into the CD slot with printed side facing you.

2 Press **OK / ▶II** to play.
   - To eject the CD, ensure the CD is in stop mode and press ▲.

Play HD music

This is how to navigate and select with the remote control:
- Press ▲or ▼to select a menu option.
- Press ▶to confirm a selection.
   - Press ◀to go back to the previous screen.
- Press **HOME** to go to the Home menu.

1 Press **HD** to enter the HD music menu.
   ↳ The display guides you through the menu.

2 Press **OK/▶II**to play.
   - To stop play, press ■.

Internet radio

> **Note**
>
> - Internet radio features require broadband Internet access.
> - Internet radio features require registration.

Register the WAC7500 with Philips

1 The following steps show you how to register the Internet radio feature.

2 Turn on the WAC7500.

3 Turn on your wireless access point or wireless router with broadband Internet.

4 Ensure you have a valid email address.

5 Press **HOME**.

6 Press ▲or ▼, then ▶to select**[Radio]** > **[Internet Radio]**.
   ↳ The display shows the Internet radio registration screen.

7 Press alphanumeric buttons on the remote control to enter the valid email address.

8 Press **OK/▶II**.
   ↳ The display confirms the automated email dispatch to your mailbox.

9 Check your email inbox for a message from **ConsumerCare@Philips.com** with the subject **Your Streamium Registration....**

10 Follow the instructions in the email to complete your registration process on the Philips website.
   - To return to the Home menu, press **HOME**.

Listen to Internet radio

1 Follow the steps to register the WAC7500 with Philips (only required once for first set-up).

2 Turn on the WAC7500.

3 Turn on your wireless access point or wireless router with broadband Internet.

4 Press **HOME**.

5 Press ▲or ▼, then ▶to select**[Radio]** > **[Internet Radio]**.

* Press ▲or ▼, then ▶to select the Internet radio service.

* To return to the Home menu, press **HOME**.

Mark Internet radio stations as Favorites

You can mark Internet radio stations as your Favourites so next time you want to listen to a station, it is easy to find.

1 Follow the steps to register the WAC7500 with Philips.

2 Turn on the WAC7500.

3 Turn on your access point / cable modem or router with broadband Internet.

4 When you listen to Internet radio, press ▶ to mark the station.

* To return to the Home menu, press **HOME**.

* The next time you connect to the Internet radio, the radio station is shown in the Favorite Stations menu.

Listen to Favorite Stations

You must store Internet radio stations as Favorites, before you can use this feature.

1 Follow the steps to register the WAC7500 with Philips.

2 Follow the steps to mark Internet radio stations as Favorites.

3 Turn on the WAC7500.

4 Turn on your access point / cable modem or router with broadband Internet.

5 Press **HOME** .

6 Press ▲or ▼, then ▶to select**[Radio]** > **[Internet Radio]** > **[User ID]** (user identification name that was used for the registration) > **[Favorite Stations]**.

* Press **HOME** to go to the Home menu.

Manually add Internet radio stations

This chapter explains how to add individual URL addresses for Internet radio stations on the PC.

1 Follow the steps to register the WAC7500 with Philips, if you have not done so already.

2 On the registered product site, click the link **Streamium Management**.

3 Select **My Media**.

4 Click on the tab **Music**.

5 Enter the URL address of Internet radio station in the first column.

6 Enter a nickname in the second column.

» The nickname is the Internet radio stations identification that is displayed the WAC7500.

7 Enter a description in the third column.

8 Click on **Save** to confirm your entries.

Note

- If the manually added Internet radio station is available and broadcast in a compatible format, you can listen to it on the WAC7500.
- You can find the manually added Internet radio stations in the My Media list on the WAC7500.
- Internet radio features require broadband Internet access.

Listen to My Media

This is how to navigate and select with the remote control:

- Press ▲ or ▼ to select a menu option.
- Press ▶ to confirm a selection.
  - Press ◀ to go back to the previous screen.
- Press **HOME** to go to the Home menu. My Media allows you to access Internet radio stations that are not part of the standard service.

1 Follow the steps to register the WAC7500 with Philips.

2 Follow the steps to manually add Internet radio stations.

3 Turn on the WAC7500.

4 Turn on your access point / cable modem or router with broadband Internet.

5 Press **HOME** .

6 Select **[Radio]** > **[Internet Radio]** > **[User ID]** (user identification name that was used for the registration) and confirm.

7 Select **[My Media]** and confirm.

- To return to the Home menu, press **HOME**.

Note

- Internet radio features require broadband Internet access.

FM radio

You can listen to FM radio with the WAC7500, if you connect the supplied antenna:
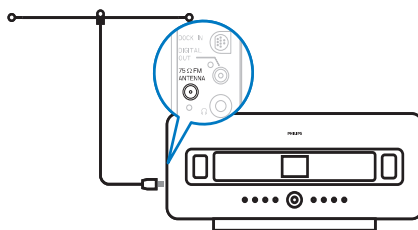
Listen to FM radio

1 Turn on the WAC7500.

2 Fully extended the connected FM antenna.

3 Press **HOME** .

4 Press **FM TUNER** .

» The current frequency is displayed.

» Press **HOME** to go to the Home menu.

Tip

- You can optimize the reception when you rotate the FM antenna.
- You can use the automatic search & store function to store channels under presets.

Change frequency

To fine tune the reception of a channel, you can adjust the channel frequency.

1 Turn on the WAC7500.

2 Press **HOME** .

3 Press **FM TUNER** .
» The current frequency is displayed.

4 Press ▲▼ to adjust the frequency.
• Press **HOME** to go to the Home menu.

Automatic channel search

The WAC7500 can automatically search available channels.

1 Turn on the WAC7500.

2 Press **HOME** .

3 Press **FM TUNER** .
» The current frequency is displayed.

4 Press and hold ▲or ▼to start automatic search function.
» When a channel is found, the search stops.

5 Press **MENU** .

6 Select **[Save to Preset]**.

7 Press ▲or ▼, then ▶to select.
» The frequency is stored under the selected preset number.
» Press **HOME** to go to the Home menu.

Automatic channel search & autostore

The WAC7500 can automatically search and store up to 60 channels under the preset numbers.

1 Turn on the WAC7500.

2 Press **HOME** .

3 Press **FM TUNER** .

» The current frequency is displayed.

» Press **MENU** .

4 Select **[Autostore radio]**.
» The WAC7500 searches and stores channels.
» When all available channels are stored, the search stops.
» Press **HOME** to go to the Home menu.

Select preset channels

You can find your preset channels in the preset channel list.

1 Turn on the WAC7500.

2 Press **HOME** .

3 Press **FM TUNER** .
» The current frequency is displayed.

4 Press ▶to display preset channel numbers.

5 Press ▲or ▼, then ▶to select.
• Press **HOME** to go to the Home menu.

Manual search & store

You can manually search and store channels.

1 Turn on the WAC7500.

2 Press **HOME** .

3 Press **FM TUNER** .
» The current frequency is displayed.

4 Press ▲▼to change the frequency.

5 Press **MENU** .

6 Select **[Save to Preset]**.

7 Press ▲or ▼, then ▶to select.
» The frequency is stored under the selected preset number.
» Press **HOME** to go to the Home menu.

Wirelessly stream music from a PC

You can wirelessly stream music to the WAC7500 from a connected PC, if you install Windows Media Player 11 on the PC (see 'Install Windows Media Player 11' on page 19) and configure the PC to share your music. (If Windows Media Player 11 is already installed on the PC, you can skip the installation section and continue with the configuration. For any other media players, refer to the instructions supplied with the player.)

Install Windows Media Player 11

1   On the PC, insert the supplied software CD.
    ›› Installation starts.
    ›› If installation does not start, click on the 🗊 icon in your Explorer program.

2   Follow the instructions on the PC to install **Windows Media Player 11**.

Configure a PC to share music

You can share music from a PC with the WAC7500. This chapter shows you how to configure the PC to share music.

1   Follow the instructions to install Windows Media Player 11 (see 'Install Windows Media Player 11' on page 19).

2   On the PC, click **Start** > **Programs** > **Windows Media Player**.

3   In the Windows Media Player interface, right click on the **Library** pull-down menu at the top of the screen and select **Media sharing...**.

4   In the **Media sharing...** pop-up window, select **Share my media**, then confirm with **OK**.
    ›› When the WAC7500 is connected to your home network, the display shows the WAC7500 with an alert icon: ⚠

5   Click on the WAC7500.

6   Select **Allow**, then confirm with **OK**.

7   On the WAC7500, press **HOME** .

8   Press ▲ or ▼, then ▶ to select **[UPnP]**.
    ›› The WAC7500 searches for the source, then displays the list of media servers.

9   Press ▲ or ▼, then ▶ to select the PC name (the Windows Media Player adds an identifier after the PC name) and confirm.

Play from a flash memory USB device

You can play music from a USB device. You can also transfer the music library of the WAC7500 to a USB mass storage device.

1   Insert the USB plug of the USB device into the USB socket of the WAC7500.
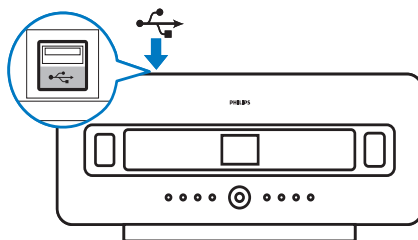
2   On the WAC7500, press **HOME** .

3   Press ▲ or ▼, then ▶ to select **[Portable]** > **[USB]**.
    ›› The display shows the USB device.

4   Press ▲ or ▼, then ▶ to select the USB content,

- Press **HOME** to go to the Home menu.

Connect audio devices (AUX)

You can play music from an external appliance that is connected to the AUX input of the WAC7500.

1 Consult the user manual of the external appliance to connect the supplied audio cable to the audio output jack of the external appliance.

2 Connect the other end of the audio cable to the **AUX IN** jack of the WAC7500.
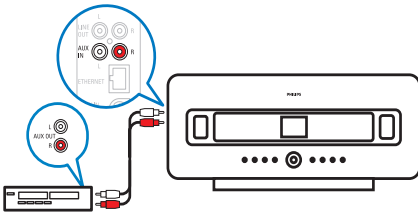
3 On the remote control of the WAC7500, press **HOME** .

4 Press ▲or ▼, then ▶to select**[AUX]**.

5 Operate the controls of the external appliance to play music.

7 Play options

You can choose between various play options:
- Repeat play (see 'Repeat play' on page 21)
- Shuffle play (see 'Shuffle play' on page 21)
- Play by artist (see 'Play by artist' on page 21)
- Play by genre (see 'Play by genre' on page 21)
- Play from a playlist (see 'Play from a playlist' on page 22)

Repeat play

You can repeat one or all audio files of the current selection.

1   In play mode, press **REPEAT** to toggle the repeat function as follows:
- **Repeat 1**
- The current audio file is continuously repeated until another mode or setting is selected.
- **Repeat all**
- All audio files of the current selection are continuously repeated until another mode or setting is selected.
- **Off** (default)

Shuffle play

You can play the audio files of the current selection in random order (shuffled).

1   During play, press **SHUFFLE** to toggle shuffle on and off.
    ↳ When you turn shuffle on, the current selection of audio files is played in random order.

Play by artist

You can play all audio files of the same artist from the HD of the Philips Wireless Music Center.

1   When you play HD audio, press **SAME ARTIST** .

Play by genre

You can play all audio files of the same genre from the HD of the Philips Wireless Music Center.

1   When you play HD audio, press **SAME GENRE** .

Create a playlist

You can create up to 99 playlists on the hard disk of the connected Philips Wireless Music Center.

1   Press **HD** to enter HD mode.
2   Press **MENU** to enter the HD menu.
3   Press ▲or ▼, then ▶to select**[Create Playlist]**.
    ↳ A new playlist with a default album name, such as Playlist_001, is created.
    ↳ Press **HOME** to go to the Home menu.

Add audio files to a playlist

This is how to navigate and select with the remote control:
- Press ▲or ▼to select a menu option.
- Press ▶to confirm a selection.
    - Press ◀to go back to the previous screen.
- Press **HOME** to go to the Home menu.

You can add up to 300 audio files to a playlist.

1 Turn on the WAC7500.

2 On the remote control, press **HD** .

3 Select an audio file.

4 Press **MENU** to enter the HD menu.

5 Select **[Add To Playlist]** and confirm.

6 Select playlist and confirm.
   ↳ The audio file is added to the selected playlist.
   ↳ Press **HOME** to go to the Home menu.

Play from a playlist

This is how to navigate and select with the remote control:

- Press ▲or ▼to select a menu option.
- Press ▶to confirm a selection.
   - Press ◀to go back to the previous screen.
- Press **HOME** to go to the Home menu.

1 Turn on the WAC7500.

2 On the remote control, press **HD** .

3 Press **MENU** to enter the HD menu.

4 Select **[Playlists]**.

5 Select the playlist.

6 Press **OK/▶ II** to play.

- To stop play, press ■.
   - Press **HOME** to go to the Home menu.

8 Record from HD to USB

You can record music files from the HD (harddisk) of the WAC7500 to a flash memory USB device.

1 Insert the USB plug of the USB device into the USB socket of the WAC7500:
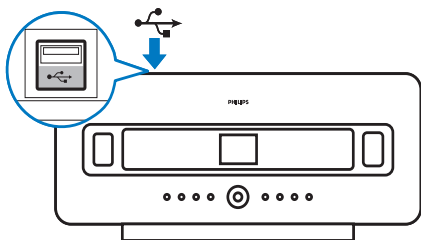
Use the remote control of the WAC7500 for the following steps:

2 Press **HD** .

3 Press **REC**.

4 Press **MARK/UNMARK** to select/deselect tracks. (By default the WAC7500 records all tracks of the HD when no tracks are marked.)

- Press **MARK/UNMARK** for 2 seconds to select/deselect all tracks.

5 Press **REC**to start recording.

6 To stop recording, press ■.

9 Alphanumeric search

You can search for specific audio files on the HD (harddisk) of the WAC7500.

1 Turn on the WAC7500.

2 Press **HD** .
 » The display shows the available lists.

3 Press ▲or ▼, then ▶to select the list.

4 Press **SEARCH** .
 » The display shows a text box.

5 Press the alphanumeric buttons on the remote control to enter the search word.

6 Press **OK/▶II** to start the search.
 » The WAC7500 shows the closest alphabetical match.

7 To stop the search, press ■.
 • Press **HOME** to go to the Home menu.

10 Gracenote® CD information

Gracenote® CD Information
Gracenote MusicID® provides the set with CD track information (including album, artist, genre, track information) from its built-in database. It allows the recorded CD tracks to be properly categorized (for example, under Artists, Albums, Genres or All tracks) and be merged with the existing tracks in the hard disk.
Gracenote® Media Database
A CD database is embedded in every WAC7500 for quick look-up on track information. An update file that contains newly released CDs is available quarterly on www. club.philips.com for download.
Update Gracenote® Media Database
Use your PC to register your product on www. club.philips.com and go to "Show Upgrades & Support" page to download Gracenote® Media Database update. Note that the updates are posted quarterly and new updates are independent from old updates, i.e. a new update can be installed, even without the previous update.

11 Settings

Change Equalizer (EQ) settings

This is how to navigate and select with the remote control:

*   Press ▲or ▼to select a menu option.
*   Press ►to confirm a selection.
    *   Press ◄to go back to the previous screen.
*   Press **HOME** to go to the Home menu.

    You can adjust the audio sound with the following equalizer settings:

*   **[Rock]**
*   **[Pop]** (default)
*   **[Jazz]**
*   **[Neutral]**
*   **[Techno]**
*   **[Classical]**
*   **[Treble/Bass]**

1 Turn on the WAC7500.

2 Press **MENU** .

3 Select **[Equalizer]** and confirm.

4 Select a menu option and confirm.
    *   Press **HOME** to go to the Home menu.

Activate Smart EQ

1 Turn on the WAC7500.

2 Press **SMART EQUALIZER** to toggle between the options:
    *   activate Smart EQ
    *   deactivate Smart EQ
    *   The Smart EQ function automatically selects equalizer settings according to the genre that is associated with the audio file.
    *   If no genre is associated with the audio file, the default setting is Pop.

Adjust treble / bass

This is how to navigate and select with the remote control:

*   Press ▲or ▼to select a menu option.
*   Press ►to confirm a selection.
    *   Press ◄to go back to the previous screen.
*   Press **HOME** to go to the Home menu.

1 Turn on the WAC7500.

2 Press **MENU** .

3 Select **[Settings]** and confirm.

4 Select **[Treble/Bass]**and confirm.

5 Select **[Treble]** or **[Bass]** and confirm.

6 Press ▲or ▼to adjust the setting and confirm.
    *   To return to the Home menu, press **HOME**.

Set Dynamic Bass Boost (DBB)

You can choose from the following DBB settings:

*   **[DBB1]**
*   **[DBB2]**
*   **[DBB3]**
*   **[DBB OFF]** (default)

1 To toggle between the settings, press **DBB** .

Activate Incredible Surround sound

1 To activate the Incredible Surround sound feature, press **INCR.SURR.** .
    *   To deactivate the feature, press the button again.

Time settings

This chapter shows you how to change the time settings.

Synchronize with RDS radio station

RDS (Radio Data System) is a service that allows FM stations to send additional information along with the FM radio signal. Automatic time synchronization is one of the RDS features.

1 Ensure that the radio station you select for synchronization has RDS.
2 Turn on the WAC7500.
3 Press **MENU** .
4 Press ▲or ▼, then ▶to select**[Settings]** > **[Time]** > **[Auto Time Sync]**.
5 Press ▲or ▼, then ▶to select the RDS station.
6 Press **HOME** to go to the Home menu.

Set the time manually

1 Ensure that the WAC7500 is turned on.
2 Press **MENU** .
3 Press ▲or ▼, then ▶to select**[Settings]** > **[Time]** > **[Set Time]**.
4 Press ▲or ▼to adjust the setting and confirm with **OK** .
5 Press ◀to go back to the previous screen.
   • Press **HOME** to go to the Home menu.

> ❋ Tip
>
> • You can also press the numeric buttons (0-9) and enter the time directly.

Set the time format

1 Turn on the WAC7500.
2 Press **MENU** .

3 Press ▲or ▼, then ▶to select**[Settings]** > **[Time]** > **[Time Format]**.
4 Press ▲or ▼, then ▶to select format.
5 Press ◀to go back to the previous screen.
   • Press **HOME** to go to the Home menu.

Set standby timer

You can select a set time period after which the WAC7500 automatically switches to standby. The timer offers the following options in minutes:
• **[Sleep 15]**
• **[Sleep 30]**
• **[Sleep 45]**
• **[Sleep 60]**
• **[Sleep 90]**
• **[Sleep 120]**
• **[Sleep off]**

1 Turn on the WAC7500.
2 Press **SNOOZE** one or more times to select a time period.
   ↳ When you set the timer, the display shows the sleep icon: 💤
   ↳ To view the remaining countdown time to standby, press **SNOOZE** anytime.

Alarm

You can set the alarm feature of the WAC7500 and choose from different repeat modes.
This is how to navigate and select with the remote control:
• Press ▲or ▼to select a menu option.
• Press ▶to confirm a selection.
   • Press ◀to go back to the previous screen.
• Press **HOME** to go to the Home menu.

1 Press **MENU** to enter the menu screen.
2 Select **[Settings]** > **[Alarm]**.

3 Select **[On]** to activate the alarm and enter the alarm settings.
  - Select **[Off]** (default) to deactivate the alarm.
4 Press ▲or ▼to adjust the setting, then press ▶to confirm the adjustment.
5 Press **OK** to confirm the alarm time settings.
6 Press ▲or ▼, then ▶to select the repeat mode **[Once]** or **[Daily]**.
  » The display briefly shows **[Alarm on]** and the alarm icon remains visible while the alarm feature is activated.

Change language

You can change the language that you have set during the first-time installation.
1 Turn on the WAC7500.
2 Press **MENU** .
3 Select **[Settings]** > **[Language]**.
4 Press ▲or ▼, then ▶to select the language.
5 Press **HOME** to go to the Home menu.

Maintenance

This chapter tells you how to care for your WAC7500.

Cleaning

Note

- Avoid moisture and abrasion.

1 Clean the WAC7500 only with a soft dry cloth.

Update

- When the WAC7500 is connected to a PC, you can download new firmware updates.

Update through PC connection

This chapter shows you how to install the WADM (Philips Wireless Audio Device Manager) software. The WADM is necessary to search and download software updates for the WAC7500.
1 On the PC, visit the www.philips.com/welcome.
2 Download the latest software for the WAC7500 to the harddisk of the PC.
3 Turn on the WAC7500.
4 Ensure that the WAC7500 is connected to the network of the PC.
5 Insert the supplied software CD into the PC.
6 Follow the instructions on the PC to install WADM.
7 When the security alert message (Microsoft Windows Firewall) pops up, press 'Unblock' to allow the WADM application to run on the PC.
  » The firewall is still effective and only allows the WADM to run.
8 On the WADM screen, select **Device Configuration**.
9 In the Device Configuration screen, select **Firmware upgrade** and click **OK**.
10 Click **Browse** to locate the software image file that you saved on the harddisk of the PC.
11 Click **OK** to start the update.
  » The software update progress is shown.
  » When the software installation is complete, the WAC7500 restarts.

Restore the default settings

You can restore the default settings (including network settings) of the WAC7500.

1 Turn on the WAC7500.

2 Press **HOME** to go to the Home menu.

3 Press **MENU** to enter the menu display.

4 Press ▲or ▼, then ▶to select**[Settings]** > **[Restore settings]**.

5 Press ▶.

6 Press ▶ to select **[Yes]**.
  » The WAC7500 restarts when the factory settings are restored.
  » The language selection display is shown.

✱ Tip

• You can restore the default settings without losing the audio files on the harddisk of a connected PC or Center.

12 Add a Philips Wireless Music Station (sold separately)

You can add up to 5 Philips Wireless Music Stations (sold separately) and expand your wireless music to other locations in your home.

Add a Philips Wireless Music Station to the WAC7500

This connection creates a wireless of the Philips Wireless Music Station to the home network that the WAC7500 connects to:

1 Place the WAC7500 and the Philips Wireless Music Station next to each other.

2 Follow the instructions of the Philips Wireless Music Station to connect the Station to the power supply.

3 Turn on the WAC7500.

4 Turn on the Philips Wireless Music Station.
   • If you turn on the Philips Wireless Music Station for the first time, follow the instructions of the Philips Wireless Music Station to select the language.
   • The devices are ready for the connection setup.

Connection setup:

1 On the remote control of the WAC7500, press **HD**.

2 Press **MENU** to enter the menu screen.

3 Press ▲or ▼, then ▶to select**[Station Mgnt]**.

4 Press ▲or ▼, then ▶to select**[Add New Station]**.
   » The WAC7500 searches for Philips Wireless Music Stations.

5 Follow the instructions of the Philips Wireless Music Station to enter the '**Installation Mode**' on the Station. (The Philips Wireless Music Station must be in '**Installation Mode**' so that the WAC7500 can find it.)

6 When the display of the WAC7500 shows that the Philips Wireless Music Station is found, press ■.
   » The WAC7500 stops to search.
   » You can relocate the devices.

Note

• Thick walls and metal obstacles between the devices can impair the wireless connection.

Broadcast music to Philips Wireless Music Stations

Note

• This feature requires that you first connect the WAC7500 to a Philips Wireless Music Station (sold separately) (see 'Add a Philips Wireless Music Station (sold separately)' on page 30).

1 Turn on the Philips Wireless Music Station.

2 Turn on the WAC7500.

3 While playing music, press **MUSIC BROADCAST** .
   » After a short delay, all connected Philips Wireless Music Stations play the music you broadcast from the WAC7500.
   » To stop the broadcast on the WAC7500, press ■.
   » To stop the broadcast on the connected Philips Wireless Music Station, press ■.

Music Follows Me

> **Note**
>
> • This feature requires that you first connect the
>   WAC7500 to a Philips Wireless Music Station (sold
>   separately) (see 'Add a Philips Wireless Music Station
>   (sold separately)' on page 30).

As you move around at home, let the music
move with you between the WAC7500 and
one or more connected Philips Wireless Music
Stations. The unit where the music is playing is
the source unit. The unit to which you want to
move the music is the destination unit.

1 Ensure that source unit and the destination
  unit are turned on.

2 On the source unit, press **MUSIC
  FOLLOWS ME** .
  » The displays of the source unit and
    the destination unit show an icon to
    indicate that the feature is activated.

3 On the destination unit, press **MUSIC
  FOLLOWS ME** .
  » The icon disappears from the displays.
  » The music play simultaneously stops
    on the source unit and starts on the
    destination unit.
  » To stop the music play, press ■ on the
    unit where the music plays.

Delete a Philips Wireless Music Station from the WAC7500

1 On the remote control of the WAC7500,
  press **HD** .

2 Press **MENU** .

3 Press ▲or ▼, then ▶to select**[Station
  Mgnt]**.

4 Press ▲or ▼, then ▶to select**[Delete
  Station]**.
  » The display shows all the Philips
    Wireless Music Stations that are
    connected to the network of the
    WAC7500.

5 Press ▲or ▼, then ▶to select the Philips
  Wireless Music Station you want to delete.

6 Press ▲or ▼, then ▶to select**[Yes]**.
  » The Philips Wireless Music Station
    is deleted from the network of the
    WAC7500.

Relocate a connected WAC7500 or Philips Wireless Music Station

1 Turn off (or switch to Eco Standby) the
  device you want to relocate.

2 Disconnect the device from the power
  supply.

3 Reconnect the device to the power supply
  in the new location.
  » The Wi-Fi connection recovers
    automatically.

> **Note**
>
> • Thick walls and metal obstacles between the devices
>   can impair the wireless connection.

Add a Philips Wireless Music Station (sold separately)

13 Technical data

General

AC Power	Voltage information is printed on the back or the underside of the WAC7500.
Dimensions (w × h × d)	387 × 272 × 128 mm
Weight (net)	Main unit: ~ 3.6 kg

Power consumption

On	< 25 W
Standby (active)	< 20 W
ECO (passive) standby	< 1 W

Amplifier

Output power	2 × 7.5 + 15 W (RMS)
Frequency response	60 - 20,000 Hz (-3 dB)
Signal to noise ratio	72 dBA (IEC)

Speakers - tweeter

Power	20 W (RMS) / 30 W (MPO)
Frequency response	1 kHz - 20 kHz
Sensitivity	76 dB / m / W
Impedance	6 Ω
Dimensions (w × h)	72 × 42 mm

Speakers - mid range

Power	20 W (RMS) / 30 W (MPO)
Frequency response	130 Hz - 5 kHz
Sensitivity	76 dB / m / W
Impedance	6 Ω
Dimensions (w × h)	75 × 75 mm

Speakers - sub-woofer

Power	50 W (RMS) / 75 W (MPO)
Frequency response	75 Hz - 500 Hz
Sensitivity	83 dB / m / W
Impedance	12 Ω
Dimensions (Ø)	125 mm

Headphone

Impedance	16 - 150 Ω

Input sensitivity

AUX IN	500 mV

Wired (LAN / Ethernet)

Wired standard	802.3 / 802.3 u
Speed	10 / 100 MBit/s
Mode	half / full duplex
Crossover detection (Auto MDIX)	Yes (Auto MDIX)

CD player

Frequency range	60 - 20,000 Hz (-3 dB)
Signal to noise ratio	75 dBA (IEC)
M4A (AAC) bit rate	16 - 320 kbps, CBR / VBR
MP3 bit rate	32 - 320 kbps, CBR / VBR
WMA bit rate	up to 192 kbps, CBR / VBR
Sampling frequencies	32, 44.1, 48 kHz

HD player

Frequency range	60 - 20,000 Hz (-3 dB)
Signal to noise ratio	72 dBA (IEC)
MPEG 1 Layer 3 (MP3-CD)	MPEG AUDIO
MP3-CD bit rate	32 - 320 kbps, CBR / VBR
WMA bit rate	up to 160 kbps, CBR / VBR
Sampling frequencies	32, 44.1, 48 kHz
HD storage cpacity	80 GB (actual formatted capacity will be less)

USB player

USB	12 Mbps, V1.1 (supports MP3, WMA and M4A files)
USB class	MSC, MTP
Number of tracks / titles	maximum 9999

Specifications and external appearance are subject to change without notice.

Supplied accessories

- Remote control
- 2 AAA batteries
- AC power cable
- FM radio antenna
- Software CD-Rom

PC connection requirements

The minimum requirements for PC connections are:
- Windows 2000 SP4 (or above) / XP SP2 / Vista
- Pentium III 500 MHz processor or higher
- 256 MB RAM
- CD-ROM drive
- Adapter

- Ethernet enabled, plus Ethernet cable (for wired connection)
- Wireless network 802.11 b/g (for wireless connection)
- 500 MB free hard disk space

14 Troubleshooting

The WAC7500 is connected to a home network and music skips during play (from any source including HD), what do I do?

- Ensure that the network router is turned on.
- Ensure that the network settings are correct for the selected network (see section 'Connect to a home network').

I cannot hear any sound or the sound is poor, what do I do?

- Press + **VOL** − to increase the volume.
- Press the **MUTE** button again to reactivate the sound output.

The radio reception is poor, what do I do?

- Adjust the antenna for better reception.
- Increase the distance between the WAC7500 and TV or VCR devices.

Is there a maximum distance of transmission between a Philips Wireless Music / Micro Center and the WAC7500 for effective streaming?

Yes. The maximum distance of Wi-Fi transmission is 250m measured in open spaces. However, in a home environment, where solid obstacles such as walls and doors are present, the effective transmission distance is reduced to 50-100m. Reposition the devices if you experience transmission problems.

How do I avoid Wi-Fi interferences from other devices that operate in the same (2.4GHz) frequency spectrum, such as Dect phones or bluetooth devices?

- Move the WAC7500 at least 3m away from such devices.

- Use a WEP/WPA encryption key when you create the wireless connection your PC / home network.
- Change the operating channel on the interfering devices.
- Turn the devices in different directions to minimize interference.

The wireless firmware update failed, what do I do?

1 Ensure that the PC is connected to the Internet.

2 Use an Ethernet cable (sold separately) to connect the WAC7500 to the PC.

3 On the PC, launch the WADM to update the firmware.

I have done all the steps described to connect the WAC7500 to my wireless home network, but the WAC7500 is still not connected.

- On the WAC7500, press **MENU** . Select **[Information]** > **[Wireless]** > **[Wireless Mode]**. Check that the WAC7500 has been changed from **Ad hoc mode** to **Infrastructure mode**. Also check that the SSID, IP address, WEP key, or WPA key matches the setup of your wireless home network.
- Try to change the SSID on your router to a more unique name to ensure that it is different from the SSID that your neighbors use for their router.
- The WAC7500 supports wireless and wired connection at the same time. There is a chance that your wireless IP address and your wired IP address are on the same subnet. This will confuse the device. Consider changing the DHCP range of your wireless router so that the wireless IP received by the device is on a different subnet from its wired IP address.
- Try to change the channel of your home network settings on the router.
- On your router, consider using a WPA key instead of a WEP key. When you use a WEP as your encryption key, set all 4 keys to be the same.

- Ensure that the turbo mode of your wireless router is switched off, if your router has this function.

The wireless firmware update failed, what do I do?

1 Ensure that the PC is connected to the Internet.

2 Use an Ethernet cable (sold separately) to connect the WAC7500 to the PC.

3 On the PC, launch the WADM on the PC to update the firmware.

I have problems installing WADM or launching WADM after installation, what do I do?

- Ensure that the operating system of the PC meets the requirements.
- Ensure that the PC is virus-free.

Some files on the USB device are not displayed, what do I do?

- Check if the number of folders exceeds 99 or the number of titles exceeds 999.
- Only completely recorded MP3/WMA files can be found and played. Check if the file has been recorded completely.
- DRM-protected WMA files cannot be played.

The remote control does not function properly, what do I do?

- Reduce the distance between the remote control and the WAC7500.
- Insert the batteries with correct polarity (+/- as indicated inside the battery compartment).
- Replace the batteries.
- Point the remote control directly at the infrared sensor.

The screen of the WAC7500 is stuck in a menu or shows no response for a long period of time (2-5 minutes), what do I do?

- Press ⏻.
- If the problem persists, restart the power (disconnect and reconnect the power plug) to reset the WAC7500.

'No Disc' / 'Cannot read CD' is displayed, what do I do?

- Insert a suitable disc.

- Check if the disc is inserted with the graphics side (label) facing up.
- Wait for the condensation moisture on the lens to clear.
- Replace or clean the disc.
- Use a finalized CD-RW or CD-R.

15 Glossary

A

AAC (Advanced Audio Coding)
An audio compression scheme defined as part of the MPEG-2 standard (also known as MPEG-2 AAC or MPEG-2 NBC, or Not Backwards Compatible). It offers better sound and a compression ratio that is superior by roughly 30 percent compared to the MPEG-1 MP3 format.

AC (alternating current)
An alternating current is an electrical current whose magnitude and direction vary cyclically, as opposed to DC (direct current), whose direction remains constant. The usual waveform of an AC power circuit is a sine wave, as this results in the most efficient transmission of energy. However certain applications use different waveforms, such as triangular or square waves.

Amplifier
A device, either a single stage or a large scale circuit with multiple stages for creating gain, i.e. it makes small signals larger.

Antenna
A device, such as a rod or wire, which picks up a received radio frequency signal or radiates a transmitted RF signal.

Audio output
High-level (speaker) or line-level (RCA) signals sent from one system component to another; or the high-level signal from an amplifier to the system speakers.

AUX
Auxiliary input that allows you to connect portable audio devices.

B

Bass
The lowest three octaves of the audio band. Low bass is the bottom octave (20-40Hz), mid-bass is the middle octave (40-80Hz), and upper bass is the 80-160Hz octave.

Bit / bits
A bit is a binary digit, taking a value of either 0 or 1. For example, the number 10010111 is 8 bits long.

Bit rate
Bit rate is the number of bits that are conveyed or processed per unit of time. The bit rate is usually measured in some multiple of bits per second (kilobits per second: kbps). The term bit rate is a synonym for data transfer rate (or simply data rate).

Bluetooth
A short-range wireless protocol that is meant to allow mobile devices to share information and applications without the worry of cables or interface incompatibilities. The name refers to a Viking King who unified Denmark. Operates at 2.4 GHz. For more information, see bluetooth.com.

C

CBR (constant bit rate)
With CBR the encoder spends the same amount of bits on each frame, regardless of how much it may really need. Disadvantage of CBR: Bits are wasted in case of absolute blackness of a picture or complete silence in an audio frame. And pictures or audio frames with a lot of elements may need those bits.

CD (Compact Disc)
Format developed by Phillips, Sony, and Pioneer for conveying music and data. CDs record information by deforming the inner metal foil on the disc with tiny micro pits burned in by a laser.

CDDB

A centralized database of CDs, CD tracks, and artists on the Web, now known as Gracenote. The audio player or burner program can log on to CDDB. It uploads the ID of the CD being played, and then downloads the title, artist, and track list.

Coaxial

A single copper conductor, surrounded with a layer of insulation, covered by a surrounding copper shield and finally, an insulating jacket. An unbalanced transmission line with constant impedance. In audio, this type is commonly used for low level, line signals terminated in RCA connectors.

Compression

In audio terms, this is a process of temporarily or permanently reducing audio data for more efficient storage or transmission. A temporary reduction in file size is called 'non-lossy' compression, and no information is lost. A permanent reduction in file size (such as with MP3 files) is called 'lossy' compression, and involves discarding unnecessary information which is irretrievably lost.

D

dB (Decibel)

A unit of measure used to express relative difference in power or intensity of sound.

D

DC (direct current)

Direct current or continuous current is the constant flow of electric charge. This is typically in a conductor such as a wire. In direct current, the electric charges flow in the same direction, distinguishing it from AC (alternating current).

DHCP

DHCP stands for Dynamic Host Configuration Protocol. It is a protocol for assigning dynamic IP addresses to devices on a network.

Digital

A method to encode information using a binary code of 0s and 1s. Many wireless phones and networks use digital technology.

Digital Audio

Digital Audio is a sound signal that has been converted into numerical values. Digital sound can be transmitted through multiple channels. Analog sound can only be transmitted through two channels.

Duplex (half/full)

•   Full duplex is the ability to send and receive data simultaneously. Duplex is synonymous with full duplex. Example: when a modem operates in full-duplex mode, it can transmit data in two directions simultaneously. In half-duplex mode it can transmit data in two directions, but not simultaneously.

E

Eco (Eco Standby)

Eco Standby is the most 'economic' mode of the WAC7500 and consumes less than 1W. It is 'economic' and environmentally friendly to use this mode during longer times of non-usage of the WAC7500.

EQ (Equalizer)

A class of electronic filter circuits designed to augment or adjust electronic or acoustic systems. Equalizers can be fixed or adjustable, active or passive. Many equalizers divide the spectrum into 3 to 12 bands. This allows each section to be either increased or decreased in amplitude without changing the response of the rest.

F

Fidelity

A term used to describe the accuracy of recording, reproduction, or general quality of audio processing. "High Fidelity" (Hi-Fi) is the goal of every designer.

FM (Frequency Modulation)

In radio broadcasting: a method of modulation in which the frequency of the carrier voltage is varied with the frequency of the modulation voltage.

Frequency

The property or condition of occurring at frequent intervals. In sound, this simply refers to the regular occurrence of compression and rarification of air that we experience as sound.

Frequency Response

Is the range of frequencies that a speaker reproduces, lowest frequency to the highest. While the optimal normal is 20-20,000 Hz (Hertz), the range of human hearing for individuals is often much more restricted. A good full-range speaker system however, reproduces as much of this range as possible to cover all variations. Individual drivers are limited to reproduce only that part of the spectrum for which they were made, so their response is limited, but still a necessary point to consider when designing a complete sound system.

H

Hi-Fi (High Fidelity)

A method of sound reproduction that emphasizes the highest possible adherence to the exact character of the original sound. This is a principal that must be paramount in every stage of the recording, transportation, and recreation of the signal to be fully operational. It is usually the listener's equipment wherein this objective is most seriously compromised.

Hz (Hertz)

Cycles per second, named after Heinrich Hertz.

I

Impedance

The resistance to the flow of an electric current in a circuit. This is effectively the electrical load that a loudspeaker presents to the amplifier which drives it and is measured in ohms.

Incredible Surround Sound (Incr.Surr.)

An improved system that creates realistic, three-dimensional sound fields. These sound fields are usually achieved with multiple speakers that are arranged around the listener.

Input sensitivity

SPL (sound pressure level) a speaker produces, given one watt of power, measured from a one-meter distance at a typical input frequency (usually 1kHz unless otherwise noted on the speaker).

Interface

A device or protocol which facilitates the linking of any two devices or systems; or when used as a verb ('to interface'), the process of linking.

IP address

An IP (Internet Protocol) address is a unique computer address that enables electronic devices to communicate with and identify each other.

K

Kbps

Kilobits per second. A digital-data-rate measurement system which is often used with highly compressed formats such as AAC, DAB, MP3 etc. The higher the amount, the better the quality generally is.

K

kHz (kilo Hertz)

1000Hz or 1000 cycles per second.

L

LCD (Liquid Crystal Display)

Probably the most common way to show visual information on non-computer electronic equipment.

Lossless compression

A system for reducing the number of data bits (density) in a musical signal without corrupting the original.

M

M4A

The audio file format used by Apple in their iTunes Music Store often appears on your system with the '.m4a' filename extension. M4A can produce better audio quality than MP3 using less physical space for the files.

MHz (Mega Hertz)

One million cycles per second.

Midrange

The middle three octaves (more or less) of the audio band, where the ear is most sensitive, usually between 160Hz-3kHz.

Mono (monaural)

The operation of an amplifier in one channel for both input and output. Can refer to an amplifier with only one channel of amplification or operating in bridged mode. For low-frequency amplification applications, it provides better phase coherence and less distortion than stereo operation.

MP3

A file format with a sound data compression system. MP3 is the abbreviation of Motion Picture Experts Group 1 (or MPEG-1) Audio Layer 3. With the MP3 format, one CD-R or CD-RW can contain about 10 times more data than a regular CD.

Mute

A control found on receivers, and some mixers or signal processing units that silences (mutes) a signal path, or output.

O

Ohm

Measure of resistance to current (impedance). The lower the impedance of a speaker, the harder it is to drive.

P

PCM (Pulse Code Modulation)

Pioneering form of digital recording.

R

RDS (Radio Data System)

RDS tuners can automatically tune in stations according to the types of music (or talk) they broadcast. RDS also enables a receiver to display text messages and even graphics (usually call letters and format information) that many FM stations include on a sub-carrier signal within their normal broadcast signal. Some RDS equipped tuners can even override with traffic alerts or emergency broadcasts, during playback of other media - CD MD, or cassette. There are other useful features too, many of which are offered by the growing number of RDS stations.

RF (radio frequency)

An alternating current or voltage with a frequency (or carrier wave) above about 100kHz. It is called radio frequency because these frequencies have a capacity to be radiated as electromagnetic waves by radio (and television) stations.

Rip (ripping)

Using a software program that "grabs" digital audio from a compact disc and transfers it to a computer hard drive. The integrity of the data is preserved, because the signal does not pass through the computer sound card, and need not be converted to an analog format. The digital-to-digital transfer creates a WAV file that can then be converted into an MP3 file.

RMS (Root Mean Square)

A formula that provides a reasonably accurate means to measure and compare continuous AC power. The use of this measure is preferred when matching system components, like amplifiers and receivers.

S

S/PDIF (SPDIF) (Sony/Philips Digital Interface)

A standard audio-file transfer-format that was developed jointly by Sony and Philips. S/PDIF allows the transfer of digital audio signals from one device to another, without the need to convert first to analog. This prevents the quality of the digital signal degrading during transfer to analog.

Sampling rate

The precision with which a digital file describes the analog sound it represents. Basically, a lower rate produces files that sound worse and take up less drive space than those with a higher rate. CDs have a sampling rate of 44.1kHz, and DAT machines have a sampling rate of 48kHz. MiniDisc player/recorders with a built-in sampling rate converter can handle both rates.

Sensitivity

Volume that a speaker offers for a specific voltage input, expressed in decibels per watt (dB/W).

Shuffle

A feature that plays audio files (tracks) in random order.

Signal to noise ratio

Represents the difference between the level of the audio signal, and any interference. The larger the figure, the purer the sound.

SPL (sound pressure level)

An acoustic measurement of sound energy. 1 dB SPL is the smallest increment in sound level to which the average human is sensitive. Theoretically, 0 dB SPL is the threshold of human hearing while approximately 120 dB is the threshold of pain.

Stereo

Literally means solid. Usually taken to refer to two channel stereo, though developments in digital audio facilitate multichannel stereo.

Streaming

A technique for transferring data such that it can be processed as a steady and continuous stream. Streaming technologies are often used on the Internet because many users do not have fast enough access to download large multimedia files quickly, so the client browser or plug-in can start displaying the data before the entire file has been transmitted.

Subwoofer

The extra-low frequency drive-unit (loudspeaker) that can be used to augment both stereo and surround system.

T

Treble

High frequencies at the top end of the audio band i.e. above 3kHz.

Tweeter

The drive unit (loudspeaker) that reproduces high frequency sounds.

U

UPnP (Universal Plug and Play)

Universal Plug and Play is a networking architecture developed by a consortium of companies to ensure easy connectivity between products from different vendors. UPnP devices should be able to connect to a network automatically, handling identification and other processes on the fly. The standards developed by the UPnP Forum are media-, platform-, and device-independent.

USB (universal serial bus)

A hardware interface used to connect devices such as computer audio players, digital cameras, and more. USB is UPnP enabled (also called hot-swappable), meaning that a computer does not need to be turned off when new devices

are plugged in and the devices do not need to be configured. USB supports data transfer rates of up to 60MB per second (in USB 2.0).

V

VBR (variable bit rate)
With VBR, the encoder takes as much bits as it needs. So black pictures get few bits and complex pictures get as much as they need. While this provides the best quality the final size cannot be predicted at all.

Volume
Volume is the most common word used to specify the control of relative loudness of sounds. It also pertains to the function on many electronic devices that is used to control the loudness.

W

W (wattage)
A measurement of power. In speakers, wattage is a term that indicates power-handling characteristics in dealing with electrical voltage inputs from the amplifier.

WAP (Wireless Application Protocol)
Global protocol used in some wireless devices that allows the user to view and interact with data services. Generally used as a means to view Internet web pages using the limited transmission capacity and small display screens of portable wireless devices.

WAV
A format for sound files developed jointly by Microsoft and IBM. Built into Windows 95 to XP, which made it the de facto standard for sound on PCs. WAV sound files end with a '.wav' extension and works with nearly all Windows applications that support sound.

WEP (Wired Equivalent Privacy)
All 802.11b (Wi-Fi / wireless) networks use WEP as their basic security protocol. WEP secures data transmissions using 64-bit or 128-bit encryption; however, it does not

offer complete security and is usually used in conjunction with other security measures such as EAP.

Wi-Fi
Wi-Fi (Wireless Fidelity) is a wireless technology brand owned by the Wi-Fi Alliance intended to improve the interoperability of wireless local area network products based on the IEEE 802.11 standards. Common applications for Wi-Fi include Internet and VoIP phone access, gaming, and network connectivity for consumer electronics such as televisions, DVD players, and digital cameras.

Wireless
Telecommunications using electromagnetic waves rather than wires or cable to transmit information. Wireless communication can be used for free-ranging mobile systems such as cell phones and global positioning systems (GPS), which use satellite technology. Wireless systems can also be fixed, such as LANs that provide wireless communications within a limited area (such as an office), or wireless peripherals such as mice and keyboards.

WMA (Windows Media Audio)
An audio format owned by Microsoft, is a part of Microsoft Windows Media technology. Includes Microsoft Digital Rights Management tools, Windows Media Video encoding technology, and Windows Media Audio encoding technology.

Woofer
The drive unit (loudspeaker) that reproduces the bass (low) frequencies.

WPA / WPA2 (Wi-Fi Protected Access)
A Wi-Fi standard that was designed to improve upon the security features of WEP. The technology is designed to work with existing Wi-Fi products that have been enabled with WEP (i.e. as a software upgrade to existing hardware), but the technology includes two improvements over WEP.

Gracenote® End User License Agreement
Version 20061005

This application or device contains software from Gracenote, Inc. of Emeryville, California ("Gracenote"). The software from Gracenote (the "Gracenote Software") enables this application to perform disc and/or file identification and obtain music-related information, including name, artist, track, and title information ("Gracenote Data") from online servers or embedded databases (collectively, "Gracenote Servers") and to perform other functions. You may use Gracenote Data only by means of the intended End-User functions of this application or device.

You agree that you will use Gracenote Data, the Gracenote Software, and Gracenote Servers for your own personal non-commercial use only. You agree not to assign, copy, transfer, or transmit the Gracenote Software or any Gracenote Data to any third party. YOU AGREE NOT TO USE OR EXPLOIT GRACENOTE DATA, THE GRACENOTE SOFTWARE, OR GRACENOTE SERVERS, EXCEPT AS EXPRESSLY PERMITTED HEREIN.

You agree that your non-exclusive license to use the Gracenote Data, the Gracenote Software, and Gracenote Servers will terminate if you violate these restrictions. If your license terminates, you agree to cease any and all use of the Gracenote Data, the Gracenote Software, and Gracenote Servers. Gracenote reserves all rights in Gracenote Data, the Gracenote Software, and the Gracenote Servers, including all ownership rights. Under no circumstances will Gracenote become liable for any payment to you for any information that you provide. You agree that Gracenote, Inc. may enforce its rights under this Agreement against you directly in its own name.

The Gracenote service uses a unique identifier to track queries for statistical purposes. The purpose of a randomly assigned numeric identifier is to allow the Gracenote service to count queries without knowing anything about who you are. For more information, see the web page for the Gracenote Privacy Policy for the Gracenote service.

The Gracenote Software and each item of Gracenote Data are licensed to you "AS IS." Gracenote makes no representations or warranties, express or implied, regarding the accuracy of any Gracenote Data from in the Gracenote Servers. Gracenote reserves the right to delete data from the Gracenote Servers or to change data categories for any cause that Gracenote deems sufficient. No warranty is made that the Gracenote Software or Gracenote Servers are error-free or that functioning of Gracenote Software or Gracenote Servers will be uninterrupted. Gracenote is not obligated to provide you with new enhanced or additional data types or categories that Gracenote may provide in the future and is free to discontinue its services at any time.

GRACENOTE DISCLAIMS ALL WARRANTIES EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, TITLE, AND NON-INFRINGEMENT. GRACENOTE DOES NOT WARRANT THE RESULTS THAT WILL BE OBTAINED BY YOUR USE OF THE GRACENOTE SOFTWARE OR ANY GRACENOTE SERVER. IN NO CASE WILL GRACENOTE BE LIABLE FOR ANY CONSEQUENTIAL OR INCIDENTAL DAMAGES OR FOR ANY LOST PROFITS OR LOST REVENUES.
© Gracenote 2006

Contact information

Canada (Francophone) 1-800-661-6162

United States and Canada (English and Spanish speaking) 1-888-744-5477

Argentina (54-11) 4544-2047

Australia 1300-363-391

Austria 810000205 (€0.20/min)

Belgium 78250145 (€0.16/min)

Brazil 0800-701-02-03

Bulgaria 2-976-9996

Chile 600-744-5477 (600-PHILIPS)

China 4008-800-008 (local tariff)

Colombia 01-800-700-7445

Czech Republic 800142840

Denmark 3525-8759

Finland 09-2311-3415

France 0821 611655 (€0.23/min)

Germany 01803 386 852 (€0.14/min)

Greece 0-0800-3122-1280

Hong Kong 852-2619-9663

Hungary 680018189

India 1901-180-1111

Ireland 01-601-1777

Israel 9-9600-900

Italy 840320086 (€0.25/minute)

Japan 0570-07-6666

Korea 080-600-6600

Luxembourg 40 6661 5644

Malaysia 1800-880-180

Mexico 01-800-504-6200

Netherlands 0900-8407 (€0.20/min)

New Zealand 0800-658-224

Norway 2270-8111

Pakistan 051-580-902-3

Peru 0800-00100

Philippines 632-8164416

Poland 223491504

Portugal 2-1359-1442

Romania 1-203-2060

Russia Federation 495-961-1111; (8-800-200-0880)

Singapore 65-6882-3999

Slovakia 0800-004537

South Africa (011) 471-5194

Spain 902-888-784 (€0.10/min)

Sweden 08-5792-9100

Switzerland 0844-800-544

Taiwan 0800-231-099

Thailand 66-2-652-8652

Turkey 0800-261-3302

Ukraine 044-254-2392

United Kingdom 0870 900 9070 (£0.15/min)

Uruguay (598-2) 619-6666

Venezuela 0800-100-4888